Comments by Debra Payerchin, Regional Vice President, American Lung Association of Pennsylvania and Administrator, Pennsylvania Thoracic Society

Before the U. S. Environmental Protection Agency at its Public Listening Session for National Aging Initiative

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Good afternoon. I am Debra Payerchin, Regional Vice President for the American Lung Association of Pennsylvania (ALAPA). I also serve ALAPA's medical colleagues as Administrator for the Pennsylvania Thoracic Society.

ALAPA was founded 111 years ago to combat tuberculosis, and it is now dedicated to the prevention of lung disease and the promotion of lung health. The American Lung Association provides programs of education, community service, advocacy, and research, and is the oldest nationwide voluntary health agency in the United States. It represents a body of scientific knowledge on the subject of lung disease, specifically on well-established links between air pollution and lung disease, both as a cause of new cases and as an exacerbating agent for existing conditions.

As a public health agency, ALAPA is here today to advocate for the lung health of all of our older citizens – friends, neighbors, and family members. More than one out of seven Pennsylvanians – nearly 2 million – are 65 years of age or above. As the "Baby Boomer" population ages throughout the early decades of this century, these numbers will continue to increase. While many older individuals remain active and capable for decades into their seniority, the Lung Association recognizes that many others do not, and it is these on whose behalf we particularly feel compelled to speak.

As many of the presenting scientists showed at the National Academy of Sciences' (NAS) workshop on the "Differential Susceptibility and Exposure of Older Persons to Environmental Hazards" last December, there are several reasons why older Americans are at increased risk from air pollution hazards: First, there is the normal decline in lung function with aging; this means that when respiratory assaults do occur, there is less reserve capacity to deal with them. Second, a large fraction of older adults have a history of cigarette smoking, hastening the decline in lung function and predisposing many to acquire or actually resulting in many acquiring serious diseases of the lungs, heart or vascular system, or cancer, all of which make these individuals more vulnerable to air pollution.

A huge body of evidence shows that older Americans are disproportionately represented among those at risk from ambient ozone and particulate matter, with adverse health consequences ranging from chest pain and restricted activity to exacerbation of asthma, emergency department visits, hospitalization, and premature mortality for tens of thousands every single year.

Other factors include: Increased sensitivity to cold and decline in physical agility with age mean that older persons have a greater propensity to remain indoors, to reduce ventilation, and to increase heating use, with consequently greater exposures to indoor air pollutants and to combustion by-products. Combined with these changes with age, socioeconomic disparities mean that older Americans are more likely to use the lowest cost means of space heating, such as kerosene heaters, which results in a corresponding increase in indoor air pollutants because these units are rarely properly vented to the outdoors. Declines in physical, mental and sensory faculties, not only with age but sometimes compounded as side-effects of medications, mean that older Americans are less likely to respond appropriately to obvious IAQ problems and their sources, ranging from as simple as dried out drain traps to as hazardous as a gas leak. A mold problem that would be straightforward for other persons to handle, following EPA guidance, might remain untended because it is beyond the capabilities of some older individuals to deal with.

According to NAS workshop expert George Thurston, Sc.D., of the Department of Environmental Medicine at the New York University School of Medicine: The best risk models suggest that the likelihood of extreme health effects (such as hospitalization or death) from acute air pollution exposure is a function both of

1) long-term risk modifiers (such as chronic disease, smoking, air pollution exposure, medication use, or the impact of economic status on access to health care) that affect baseline health status

as well as of

2) short-term risk increases (such as illness episodes or other stressors) that significantly diminish reserves.

These factors appear to have a greater effect among the elderly because a higher *underlying risk* of disease is coupled with a higher *relative risk* from air pollution exposure.

Finally, in response to EPA's questions asking what steps individuals and communities should take not only to reduce the potential environmental health risks that older adults may face, but also to preserve and enhance the quality of the environment for themselves and future generations, the American Lung Association of Pennsylvania makes this chief response:

Communities great and small, individuals young and old, their elected representatives and those granted with the public trust, should fight to oppose national measures such as the so-called Clear Skies Initiative and the recent gutting of the New Source Review program. Together, these measures constitute the single largest environmental threat to the health of our aging population. Across the nation, the American Lung Association has characterized "Clear Skies" as "gutting the Clean Air Act and severely weakening efforts to curb air pollution." We have called the EPA's eviscerated New Source Review program a "major setback for public health." We have said, without credible dissent, that timely enforcement of the unweakened Clean Air Act would provide ***greater*** pollution reductions ***sooner*** than the Administration's plans.

"Clear Skies" would not go into effect for ten years or more. People living with unhealthful levels of air pollution today can't hold their breath that long.